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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,101

03/24/2005

Ryoji Inoue

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1959

5514 7590 01/18/2007
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EXAMINER

VO, ANH T N

ART UNIT

PAPER NUMBER

2861

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/529,101

Applicant(s)

INOUE ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-15, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-3, 16-22, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/8/06 & 9/11/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Claim Objection

Claims 17-22 are objected to because it does not clearly recite preamble and body language. Appropriate correction is required.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 112

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Appropriate correction or clarification is required.

With regard to claim 1, it is not understood where the limitation "a liquid containing section" comes from.

The claims remain are dependent from the above claim 1 and therefore is also considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-26 are rejected under 35 USC 102 (b) as being anticipated by Tsukuda (US Pat. 6,234,615).

Tsukuda discloses in Figures 2 and 4 an ink jet recording apparatus comprising:

- a recording head (86) for ejecting an ink (Fig. 4);
- a liquid chamber (83) communicating with said recording head (86) (Fig. 4);
- an ink tank (70B) for containing the ink (Fig. 4);
plural communication channels (80A, 80B) for providing communication between said liquid chamber (83) and said ink tank (70B) (Fig. 4);
- means (90b) for introducing atmosphere directly into said ink tank (70B) without via said liquid chamber (83) (Fig. 4);
- an ink tank (70B) comprising means (90b) for introducing atmosphere directly into said ink tank (70B) without via said liquid chamber (83); and
- means (84) for adjusting a pressure inside an ink supply system for supplying the ink to said recording head (86) (Fig. 4, column 10, lines 5-12).

Claim 16 is rejected under 35 USC 102 (b) as being anticipated by DeFilippis (US Pat. 5,905,518).

DeFilippis discloses in Figure 3 a replaceable ink supply comprising:

- a recording head (20) for ejecting an ink;
- a liquid chamber (66) communicating with said recording head (20);
- an ink tank (10) for containing the ink;

- plural communication channels (38, 40) for providing communication between said liquid chamber (66) and said ink tank (10), wherein said liquid chamber (66) forms a substantial closed space except said plural communication channels (38, 40) and said recording head (20), and on ejecting of the ink from said recording head (20), atmosphere is introduced into said ink tank (10) with liquid chamber side opening portions of said plural communication channels (38, 40) being in contact with the ink.

Allowable Subject Matter

Claims 4-12 and 23 are allowable. These claims would be allowable because the prior art references of record fail to suggest a fluid communication structure for providing fluid communication between a liquid containing section for containing a liquid and a liquid consuming section for consuming the liquid, the fluid communication structure comprising a liquid chamber that forms a substantial closed space except said plural communication channels and the liquid consuming section, and in a state where a gas exists inside the closed space, the gas can be transferred to the liquid containing section via a part of plural communication channels in the combination as claimed.

Claims 13-15 and 24 are allowable. These claims would be allowable because the prior art references of record fail to suggest an ink supply system comprising a liquid chamber that communicates a fluid with an ink tank through plural communication channels and forms a substantial closed space except the plural communication channels and a recording head, and the ink tank has means for adjusting a pressure inside the ink supply system in the combination as claimed.


CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M..

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Art Unit: 2861

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The fax number of this Group 2861 is (571) 273-8300



ANH T.N. VO
PRIMARY EXAMINER
January 10, 2006